

ABSTRACT

Provided is a method of fluorescence detection of lipid membranes using lipophilic, functionalized nanocrystals; and lipid membranes labeled by the lipophilic, functionalized nanocrystals. The method comprises contacting an effective amount of lipophilic, functionalized nanocrystals with the lipid membranes; exposing the labeled lipid membranes to an excitation light suitable for exciting the functionalized nanocrystals present in the labeled lipid membranes to emit a fluorescence emission. Also provided is a composition comprising a functionalized nanocrystal which is bound to a substrate in a living tissue.